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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,238	09/17/2003	Yan C. Huang	023439	6990
1726	7590	04/24/2006	EXAMINER	
INTERNATIONAL PAPER COMPANY 6285 TRI-RIDGE BOULEVARD LOVELAND, OH 45140			FORTUNA, JOSE A	
		ART UNIT	PAPER NUMBER	1731

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/667,238	HUANG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	José A. Fortuna	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 March 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/29/04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "**The disclosure concerns,**" "**The disclosure defined by this invention,**" "**The disclosure describes,**" etc.

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: a comma is missing between fibers and starch, i.e., the phrase "cellulosic fibers starch" does not make any sense. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Somoza Vivas, US Patent No. 1,839,136 or Orth, Jr. et al., US Patent No. 3,245,870.

All above patents, Somoza Vivas, Orth, Jr. et al., teach a paper in which cellulosic fibers are treated, internally and/or externally with mixture of boron and starch, see the figures and column 7, lines 19-46 and the table in columns 7 and 8 of Orth, Jr. et al. and page 1, lines 41 through column 2, line 9 of Somoza Vivas. Note that all of the teach explicitly or implicitly the calendering of the sheet, i.e., see specimen 4 on table of columns 7-8 of Orth, Jr. et al.; and page 1, lines 41 through column 2, line 9 of Somoza Vivas, where he teaches that the paper can be used for wallpapers, which as one of ordinary skill in the art would recognize are calendered. As to the amount of the different compounds, the claims, as claimed, only require an upper limit, the lower limit could be any amount close to zero (0), and all the patents teach addition amounts which are within the claimed, range, see the already cited columns, lines and pages. It seems that all the above patents teach all of the elements of the claims or at least the minor modifications to obtain the claimed invention would have been obvious to one of ordinary skill in the art.

4. Claims 1-13 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jung et al., KR 2001056213 and Haruo et al., JP 06-047826, (JPO machine translation used), both cited in the Information Disclosure Statement filed on April 29, 2004.

Both of the above mentioned publications, Jung et al. and Haruo et al., teach a method of making a fibrous web by forming an slurry of cellulosic fibers and a mixture of a boron containing substance/compound/material and an organic polymer, preferably a starch, see abstracts. The starch and the amounts are disclosed in Haruo et al., paragraphs [0008]-[0012] of the Means Section and the detailed Description of the Derwent abstract of Jung

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et al. As to the amount of the different compounds, the claims, as claimed, only require an upper limit, the lower limit could be any amount close to zero (0), and all the patents teach addition amounts which are within the claimed, range, see the already cited columns, lines and pages. It seems that all the above patents teach all of the elements of the claims or at least the minor modifications to obtain the claimed invention would have been obvious to one of ordinary skill in the art.

5. Claims 1-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Joniken et al., EP 0148647, cited in the Information Disclosure Statement filed on April 29, 2004.

Joniken et al. teach a retention agent for papermaking in which a boron containing additive is added to the papermaking slurry along with a starch, see abstract, page 4, lines 24-26, page 5, lines 5-20. Joniken et al. teach the same boron containing compounds as claimed and the same type of starches of the dependent claims, see the previously cited sections. As to the amount of the different compounds, the claims, as claimed, only require an upper limit, the lower limit could be any amount close to zero (0), and the Joniken et al. teach addition amounts which are within the claimed, range, see the already cited sections and examples. It seems that all the above patents teach all of the elements of the claims or at least the minor modifications to obtain the claimed invention would have been obvious to one of ordinary skill in the art.

### ***Conclusion***

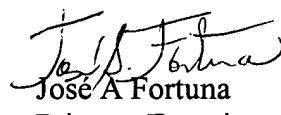
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "Papers having a mixture of a Boron containing compounds and a Starch."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



José A Fortuna  
Primary Examiner  
Art Unit 1731

JAF